

I CLAIM:

1. An arm that floats in water, the arm having (a) a surface that is configured to contact a watercraft hull, (b) a length, and (c) a passageway that is not centered along the length.

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2. The arm of claim 1, where the watercraft hull is part of a watercraft that has a longitudinal watercraft axis, and the passageway is substantially parallel to the longitudinal watercraft axis.

10 3. The arm of claim 1, where the surface has a pre-contact shape that is substantially flat or bowed inwardly.

4. The arm of claim 1, where the arm is made substantially completely of synthetic material.

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5. The arm of claim 1, where the passageway extends between two rotation-restricting openings.

20 6. An arm that floats in water and that has a surface that is configured to contact a watercraft hull, the surface having a pre-contact shape that is either substantially flat or bowed inwardly, and the arm being configured to be pivotally coupled to a watercraft docking structure.

7. The arm of claim 6, where the arm also has a second surface that is configured to contact a watercraft hull, the second surface having a pre-contact shape that is either substantially flat or bowed inwardly.

5 8. The arm of claim 6, where the arm is made substantially completely of synthetic material.

9. The arm of claim 6, where the arm has (i) a length and (ii) an opening that is not centered along the length.

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10. The arm of claim 9, where the opening is a rotation-restricting opening.

11. The arm of claim 6, where the arm has a length, a longitudinal axis oriented along the length, and a passageway that is substantially perpendicular to the longitudinal axis.

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12. An arm that floats in water and is configured to (a) contact a watercraft hull with a surface that is generally wider than long, and (b) be pivotally coupled to a watercraft docking structure.

20 13. The arm of claim 12, where the arm also is configured to contact a watercraft hull with a second surface that is generally wider than long.

14. The arm of claim 12, where the arm is made substantially completely of synthetic material.

15. The arm of claim 12, where the arm has (i) a length and (ii) an opening that is not
5 centered along the length.

16. The arm of claim 15, where the opening is a rotation-restricting opening.

17. The arm of claim 12, where the arm has a length, a longitudinal axis oriented
10 along the length, and a passageway that is substantially perpendicular to the longitudinal
axis.

18. An arm that floats in water and is configured to (a) contact a watercraft hull with a
surface that is non-rolling, and (b) be pivotally coupled to a watercraft docking structure.

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19. The arm of claim 18, where the arm also is configured to contact a watercraft hull
with a second surface that is non-rolling.

20. The arm of claim 18, where the arm is made substantially completely of synthetic
20 material.

21. The arm of claim 18, where the arm has (i) a length and (ii) an opening that is not
centered along the length.

22. The arm of claim 21, where the opening is a rotation-restricting opening.

23. The arm of claim 18, where the arm has a length, a longitudinal axis oriented
5 along the length, and a passageway that is substantially perpendicular to the longitudinal
axis.

24. An apparatus comprising:

a pair of float arms configured to help center a watercraft having a longitudinal
10 watercraft axis, each float arm having a passageway that is substantially
parallel to the longitudinal watercraft axis.

25. The apparatus of claim 24, further including:

a frame to which both float arms are pivotally coupled.

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26. The apparatus of claim 25, further including:

a second pair of float arms pivotally coupled to the frame.

27. An apparatus comprising:

a pair of float arms configured to help center a watercraft having a longitudinal
20 watercraft axis, at least one of the float arms having a length and a first
structure that is configured to be pivotally coupled to a watercraft docking
structure, the first structure being not centered along the length.

28. The apparatus of claim 27, where the float arm having the first structure also has a portion having a width, and the first structure is a wall defining a passageway that spans the width.

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29. The apparatus of claim 27, further including:
a frame to which both float arms are pivotally coupled.

30. The apparatus of claim 29, further including:

10 a second pair of float arms pivotally coupled to the frame.

31. An apparatus useful for centering a watercraft, comprising:
a first float arm having a first float arm length, the first float arm being configured to (a) be pivotally coupled to a watercraft docking structure, and (b) pivot about a first axis that is not centered along the first float arm length; and
15 a second float arm configured having a second float arm length, the second float arm being configured to (a) be pivotally coupled to a watercraft docking structure, and (b) pivot about a second axis that is not centered along the second float arm length, the first and second axes being laterally spaced apart from each other.

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32. The apparatus of claim 31, where the first and second float arms are configured to be pivotally coupled to a frame that is configured to be pivotally coupled to a trailer.

33. The apparatus of claim 32, where the first and second float arms are pivotally coupled to the frame, the first float arm pivots about the first axis, and the second float arm pivots about the second axis.

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34. The apparatus of claim 33, where (i) the frame includes a back portion to which the first and second float arms are pivotally coupled, and a front portion that is pivotally connected to the back portion along a lateral axis that is substantially perpendicular to the first and second axes; and (ii) the front portion of the frame is configured to be pivotally coupled to a trailer.

10 35. The apparatus of claim 33, where the frame is configured to pivot about a frame axis that is substantially perpendicular to the first and second axes.

15 36. The apparatus of claim 33, where (i) the frame includes two substantially parallel bars, (ii) the first float arm pivots about one of the substantially parallel bars, and (iii) the second float arm pivots about the other substantially parallel bar.

37. The apparatus of claim 36, where one of the parallel bars comprises different bars
20 connected together.

38. The apparatus of claim 36, where (i) the first float arm includes a first float arm passageway through which one of the substantially parallel bars runs, and (ii) the second

float arm includes a second float arm passageway through which the other substantially parallel bar runs.

39. The apparatus of claim 31, where (i) the first float arm includes a first float arm 5 passageway that is not centered along the first float arm length, and (ii) the second float arm includes a second float arm passageway that is not centered along the second float arm length.

40. The apparatus of claim 36, where the first and second float arms comprise a pair 10 of float arms, and the device also includes:

a second pair of float arms pivotally coupled to the frame, one float arm from the second pair being pivotally coupled to one of the substantially parallel bars, and the other float arm from the second pair being pivotally coupled to the other substantially parallel bar.

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41. The apparatus of claim 40, the apparatus including at least three pairs of float arms pivotally coupled to the frame.

42. The apparatus of claim 41, the apparatus including at least four pairs of float arms 20 pivotally coupled to the frame.

43. The apparatus of claim 31, where the first and second float arms are configured to be pivotally coupled to a frame that is configured to be pivotally coupled to a watercraft-lifting system.

5 44. The apparatus of claim 43, where the first and second float arms are pivotally coupled to the frame.

45. The apparatus of claim 44, where the frame is configured to be pivotally coupled to a lift tank system.

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46. The apparatus of claim 45, where the frame is configured to pivot about a frame axis that is substantially perpendicular to the first and second axes.

15 47. The apparatus of claim 44, where (i) the frame includes two substantially parallel bars, (ii) the first float arm pivots about one of the substantially parallel bars, and (iii) the second float arm pivots about the other substantially parallel bar.

48. The apparatus of claim 47, where one of the parallel bars comprises different bars connected together.

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49. The apparatus of claim 47, where (i) the first float arm includes a first float arm passageway through which one of the substantially parallel bars runs, and (ii) the second

float arm includes a second float arm passageway through which the other substantially parallel bar runs.

50. The apparatus of claim 43, where (i) the first float arm includes a first float arm passageway that is not centered along the first float arm length, and (ii) the second float arm includes a second float arm passageway that is not centered along the second float arm length.

51. The apparatus of claim 47, where the first and second float arms comprise a pair 10 of float arms, and the apparatus also includes:

a second pair of float arms pivotally coupled to the frame, one float arm from the second pair being pivotally coupled to one of the substantially parallel bars, and the other float arm from the second pair being pivotally coupled to the other substantially parallel bar.

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52. The apparatus of claim 51, the apparatus including at least three pairs of float arms pivotally coupled to the frame.

53. The apparatus of claim 52, the apparatus including at least four pairs of float arms 20 pivotally coupled to the frame.

54. The apparatus of claim 53, the apparatus including at least five pairs of float arms pivotally coupled to the frame.